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ABSTRACT

This planning guide for inservice vocational teacher education is one of a series of materials developed by the Comprehensive Vocational Teacher Education Program for the Mississippi ARC (Appalachian Regional Commission) Region to provide teacher educators, vocational directors, teachers, and other appropriate individuals with material needed to improve professional teaching competencies. The purposes of the guide are the following: (1) to provide direction for developing, conducting, and reporting on inservice training activities; (2) to standardize the form to be employed in developing, conducting, and reporting on inservice training activities; and (3) to provide the project director, the training coordinator, and other responsible staff members with a basis for controlling the quality of and reporting on inservice training activities. The publication is organized in seven sections covering the following topics: steps for developing and implementing inservice training; planning and programming an inservice training session; developing a unit plan; developing a lesson plan; developing and coding instructional materials; evaluating inservice training; and inservice records and report. Sample lesson plans for inservice education are included in the guide. (KC)

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PLANNING AND CONDUCTING INSERVICE TRAINING FOR VOCATIONAL TEACHERS

DEVELOPED BY

GERALD A. RICHARDSON

JANUARY, 1981

Comprehensive Vocational Teacher Education Program
for the Mississippi ARC Region

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PREFACE

A major objective of the Comprehensive Vocational Teacher Education Program for the Mississippi ARC Region is .... "To provide specialized instruction in methods and techniques of teaching through inservice training for degree and non-degree teachers." Another objective of the program is .... "To provide an individualized graduate internship program designed to offer unique field experiences for the intern while providing specialized inservice training for practicing vocational teachers."

The purpose of this guide is to:

A. Provide direction for developing, conducting, and reporting on inservice training activities.

B. Standardize the form and format to be employed in developing, conducting, and reporting on inservice training activities.

C. Provide the Project Director, the Training Coordinator, and other responsible staff members with a basis for controlling the quality of and reporting on inservice training activities.

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INTRODUCTION

"A good teacher is the key to good instruction." One characteristic of a "good teacher" is an attitude that personal and professional development does not end with graduation from college or certification, but continues throughout the length of a teaching career. A convenient avenue open to practicing teachers for continued personal and professional development is inservice training.

Inservice training not only provides the practicing teacher with an opportunity to develop new teaching competencies, but upgrades and refines existing ones. For the vocational teacher inservice training can occur in both a highly specialized service area or in the general professional aspects of teaching. Typical inservice activities include: directed self-study, orientation sessions prior to the opening of the school term, short seminars and workshops conducted during the regular school term, field trips, lectures by outstanding educators and/or technical experts, or university extension courses on the college campus.

To be successful, inservice training must be carefully planned and implemented. In fact, the planning and conducting of inservice training may, in some respects, be even more critical than planning and conducting a regular course of study. The compressed time frame in which most inservice training is conducted, and the fact that presentation of material on a particular subject is generally a one-shot proposition leaves little ground for error or omission. To preclude errors and omissions, the development and implementation of inservice training should be approached as a systematic, step by step process.

STEPS FOR DEVELOPING AND IMPLEMENTING INSERVICE TRAINING

Although differences in resources, needs and attitudes may cause inservice training programs to vary between school systems, little variation seems to exist in the steps employed in developing successful inservice training programs. The steps common to most successful programs are:

A. Identify needs: A genuine effort must be made to identify local needs which can be met though inservice training. Needs may be identified by a variety of formal or informal methods. Some common methods employed are: study of evaluation reports of past inservice training, formal studies or assessments made by outside experts, self-studies, self-assessment inventory examinations, interviews, suggestion boxes, etc. Regardless of the method or methods employed to identify needs, there are two basic principles of needs assessment which should always be adhered to.

   1. The determination of needs should not be made unilaterally by administrators, supervisors, or outside experts.
   2. Inservice program participants must be permitted input into the determination of needs process.

B. Categorize needs: Once needs have been identified they should be categorized by listing similar topics together. Topic similarities should then be studied to determine if two or more needs can be met through a single inservice training session.

C. Consider feasibility: Once identified needs have been arranged in topical categories the feasibility of meeting the identified needs through inservice training sessions should be considered. Topics

which may be considered as feasible are those which: are salient to professional or personal development, can be effectively presented to groups in short, but intensive, training sessions, do not involve the presentation of excessive amount of complex material, and can be presented with existing, or very little additional, resources. Needs which focus on a single individual or which involve the study of excessive amounts of complex material should not be considered feasible for inservice training as such needs can probably be best met though individualized study or enrollment in college courses.

D. Establish priorities: Since the list of needs which can be feasibly met through inservicing may be too great for the time and resources available, an order of priority of meeting needs should be established. The highest priority should of course be given to meeting the most pressing need. Other factors which should be considered in establishing priority are: sequencing of topics, compatible with the school systems time or course schedule, and the availability of resources (personnel, material, equipment and facilities).

E. Get commitments from teachers and administrators: Without commitments from teachers and administrators there can be no inservice training. Commitments are needed from administrators to support the training with facilities, equipment, material, personnel and teacher release time. Teachers must be committed to participating in the developmental process as well as attending the training sessions. If administrators and teachers are permitted active involvement in all phases of inservice program development process, the needed commitments will be more easily secured.

F. Plan and program training: After securing the necessary commitment of support the next step in the process is the planning and development of specific inservice training sessions. Since this step is critical, heavy reliance should be placed on the most highly qualified individuals or groups, both inside and outside of the system. However, these highly qualified individuals, or groups, must not work in isolation from the program participants. Also, it is necessary that a separate planning document be produced for each inservice training session to be conducted. The specific steps for planning and programming inservice training sessions, as well as the form and format of planning documents are shown in other sections of this manual.

G. Implement the plan: Plan implementation is in effect the presentation phase of inservice training. Since presentation is the most visible phase of inservicing, extreme care must be exercised to insure that the training session is conducted in the most professional manner. This requires that the instructor assigned to conduct the training not only be qualified in the subject, but that he/she enhance the probability of success by:

1. Conducting a complete rehearsal of the intended program before an individual, or individuals, capable of critiquing the program. Such rehearsal not only tests the appropriateness of materials and effectiveness of techniques, but provides feedback which can serve as a basis for modifying planning errors.
2. Conducting an inspection of the classroom/laboratory facilities

to be employed. The inspection should involve such considerations as: seating arrangement, lighting, operability of equipment, availability of supplies, etc., and should be conducted sufficiently in advance of the starting time to permit correction of any existing deficiencies.

3. Strictly adhering to predetermined time schedules. Training sessions should begin on time, end on time, and provide for adequate breaks if sessions are more than one hour duration.
4. Maintaining control over the session at all times. Since inservice training sessions are usually of such short duration, the instructor cannot permit discussion to stray from the subject or discussion to be monopolized by one or two participants.

H. Evaluate the training: Evaluation is the final step in the process of conducting an inservice training program. It reveals the extent to which program participants have benefited and helps identify future inservice training needs. Several different methods of evaluation such as: pretest-posttest, subsequent observation of teacher performance, student follow-up, etc., may be employed. Regardless of what methods are employed, there are some critical considerations which should be given to the process.

1. Evaluation planning should begin at the same time inservice training session objectives are developed.
2. The instruments must be selected or designed with a view toward the objectives. They must tell if objectives were met.

3. Evaluators who have competence in the use of the selected evaluation instruments should be designated.
4. Determination must be made as to how the evaluation results will be used.

PLANNING AND PROGRAMMING AN INSERVICE TRAINING SESSION

Planning and programming may be the most underemphasized aspect of inservice training, as the most frequent criticism of an unsuccessful program is that it was "ineptly or inadequately planned." Strangely, many of those who criticize inservice training as being poorly planned are the very individuals who shy away from planning as they consider it a complex process. However, planning is not that complex. It is simply a logical, systematic, process whereby the questions of who, what, where, when, how and why are answered. Outlined below are the sequential steps which should be followed in answering the critical questions involved in successfully planning an inservice training session.

A. Develop realistic objectives. (Answers what.)

1. Objectives must be based on needs
2. Should be stated in terms of student behavior
3. Must be attainable

B. Consider and select the types of training most likely to accomplish the objectives. (Helps answer how.) Some types of training appropriate for inservice training are:

1. Directed self-study
2. Short training sessions, workshops, seminars, etc.
3. Testing programs
4. University extension courses
5. Field trips

C. Consider characteristics of the target population. (Answers who.)

In the case of ARC, vocational instructors can be characterized by:

1. Level of education (degree or non-degree)

2. Amount of teaching experience

3. Subject taught

4. Whether employment is with a secondary or post secondary institution

D. Consider and select combinations of activities to be employed. (Helps answer how.) The two principal questions to be answered about activities are should they be:

1. Individual or group oriented?

2. Student centered or teacher centered?

E. Consider and establish incentives for program participants. (Answers why.) Some possible incentives are:

1. College credit or Continuing Education Units (CEU)

2. Professional development

3. Release time

4. Expenses reimbursed

5. Application of inservice toward recertification

F. Consider and select appropriate media. (Helps answer how.) The media which will generally be employed are:

1. Printed material

2. Audio visual material

3. Hardware

4. Speakers

G. Consider and develop critical time factors. (Answers when.) Critical time factors will be governed by:

1. Length of training session

2. Days of the week, hours of the day

3. Lead time to prepare, coordinate

4. Sequencing with other inservice training

5. Sequencing of courses taught by participants

6. Travel time

H. Select adequate training site and facilities. (Answers where.)

1. Secure sponsorship

2. Schedule use of site and facilities

3. Publish schedule

I. Consider and select proper evaluation techniques. (Answers how well.)

1. Instruments

2. Evaluators (participants or outsiders)

3. Use of evaluation results

DEVELOPING A UNIT PLAN

A unit of instruction is a well defined portion of a total instruction program centered around a single topic or cluster of competencies. The planning document that describes a unit of instruction is called a unit plan. This document not only describes the content of the unit but identifies sub-topics, student activities, resources required, evaluation techniques, etc. While there is no one best format for developing a unit plan, every well-developed unit plan will contain the following elements:

A. Unit title: The title should clearly and briefly state the name of the unit. The title section should also state the name of the individual who prepared the unit plan and the date it was prepared.

B. Introduction: The introduction briefly describes the general scope and requirements of the unit.

C. Unit outline: The outline shows the division of the contents of the unit. Normally, it is very condensed but may be expanded in the lessons plans which are subsequently developed.

D. Student performance objectives: Each objective of the unit should be stated in terms of the expected behavior of the student upon completion of the unit.

E. Student learning activities: Here the activities that will enable the student to reach the objectives are listed. Also specified in this section are those activities to be performed by the teacher and the resources required for the activity.

F. Evaluation: In this section, the evaluation techniques or instruments to be employed to determine if students reach the objectives are described.

G. Resource materials: This section lists the books, films, filmstrips, reference sheets, tapes, speakers or any other instructional material needed for use by either the students or the instructor.

Unit plans developed for the Comprehensive Vocational Teacher Education Program for the Mississippi ARC Region will contain all of the elements described above and will be organized in the format shown as Sample 1. Before any unit plan is used as a basis for developing lesson plans, it will be submitted to the Project Director for review and approval. After a unit plan is approved, one copy will be placed on file in the Comprehensive Vocational Teacher Education Program for the Mississippi ARC Region Office.

SAMPLE #1

UNIT PLAN

UNIT TITLE:

PREPARED BY: DATE:

I. INTRODUCTION

II. UNIT OUTLINE:

III. STUDENT PERFORMANCE OBJECTIVES:

IV. STUDENT LEARNING ACTIVITIES | RESOURCES REQUIRED

V. STUDENT EVALUATION:

VI. RESOURCE MATERIAL:

UNIT PLAN

UNIT TITLE: Preparation and Use of Audiovisual Materials

PREPARED BY: DATE:

I. INTRODUCTION:

Audiovisual materials, when used properly, result in significant contributions to learning. The purpose of this unit is to introduce practicing teachers to the different types of audiovisual equipment and materials, and to provide opportunity for practicing teachers to develop competency in the procedures and techniques for planning, developing and using audiovisual materials in the management of learning.

II. UNIT OUTLINE:

A. Background to Audiovisual Materials: Proper use of audiovisual materials will:

1. Make education more productive
2. Make education more individual
3. Make education more immediate
4. Make access to education more equal for learners
5. Give instruction a more scientific base

B. The following types of audiovisual equipment and materials will be studied:

1. Graphics
2. Motion picture projectors and films
3. Overhead projectors and transparencies
4. Slide projectors and slides
5. Film strip projectors and film strips
6. Cameras and photographic prints
7. Tape recorders and recordings
8. Television
9. Multimedia materials

C. The following topics will be used to study each of the above listed equipment/materials:

1. Basic principles of equipment operation
2. Procedures and techniques for planning and producing and using audiovisual materials
3. Advantages and disadvantages of different types of audiovisual equipment and materials

SAMPLE #2

III. STUDENT PERFORMANCE OBJECTIVES:

The student will be able to:

A. Identify by an objective test the different types of audiovisual equipment and material.

B. Successfully operate the different types equipment.

C. Plan and produce the different types of audiovisual materials.

D. Make a presentation using materials they have planned and developed.

E. List the advantages and disadvantages of the different types of equipment and materials.

IV. STUDENT LEARNING ACTIVITIES	RESOURCES REQUIRED
Listen to teacher presentation on background of audiovisual equipment and materials.	Overhead transparency "How Audiovisual Materials Can Contribute to Learning"
Read Chapters 1 & 2 in text.	Kemp, Jerrold E. Planning and Producing Audiovisual Materials
Observe teacher lecture demonstration of equipment and proper operating procedures. Participate in class discussion.	Handout: "Descriptions and Characteristics of Audiovisual Equipment and Materials." Appropriate audiovisual equipment and samples of different materials.
Individually or in small groups set up and operate audiovisual equipment.	Appropriate equipment operations manuals. Appropriate audiovisual equipment and materials.
Individually or in small groups plan and develop audiovisual materials such as overhead transparencies, slide presentations, slide/tape presentation, etc.	Appropriate raw materials and production equipment such as film, paper mounts, drawing instruments, etc.
Make a presentation to the class using audiovisual materials which the student has prepared.	Kemp, Jerrold E. Planning and Producing Audiovisual Materials (CH 13-24). Appropriate audiovisual equipment and materials.

V. STUDENT EVALUATION:

A. Objective tests on types, characteristics, advantages and disadvantages of audiovisual equipment and materials.

B. Performance test on equipment operation procedures (including safety). (Rating scale: excellent, satisfactory, unsatisfactory)

C. Performance test on planning and producing audiovisual materials. (Rating scale: Product will be rated as excellent, satisfactory, unsatisfactory.)

D. Presentations will be evaluated by entire class using evaluation checklist passed out at the time of assignment.

VI. RESOURCE MATERIALS:

Articles: John Davis, "Who Should Use Audiovisual Aids," Vocational Education, 1978. Leo Thomas, "What Is Audiovisual Aids," Intake, 1971. Bill Dolittle, "New Trend in Audiovisual Aids," Sunbelt, 1979.

Books: Jerrold E. Kemp, Planning and Producing Audiovisual Materials, Scranton, Pennsylvania: Chandler Publishing Co., 1968.

Films and Filmstrips: Film Transit, Inc., "How to Use Audiovisual Aids." AV Film Co., "All About A.V."

Operations Manuals: Appropriate to the types of equipment used.

DEVELOPING A LESSON PLAN

A lesson plan is a simply stated, clearly written teacher aid for developing classes. It is individualized from a standpoint of student needs, interest, and abilities as well as goals and style of the teacher. Although there are many forms for writing lesson plans, well-developed lesson plans generally contain four separate sections.

A. Preliminary information: This section will contain, as a minimum, the subject or unit title and the title of the lesson. It may also show the educational level of the students, the name of the teacher, and the date, hour and place the lesson will be taught.

B. Lesson approach: This section, sometimes called the preparation phase, contains two essential elements of information.

1. The lesson objectives: Lesson objectives, which are drawn from the broader objectives of the unit plan, state what the students will be able to do as a result of the instruction. Each objective statement should contain only one objective and should be written so that it can be understood by both the students and the teacher.

2. Introduction: The introduction states how the teacher will acquaint the students with the lesson objectives. It orients students on the objectives, how the lesson relates to them and their previous experiences and what will be expected of them. It also serves to get the attention of the students and should motivate them sufficiently to hold their attention.

C. Lesson development: This section, sometimes called the presentation and/or application phase, contains four essential elements of information.

1. Method or technique to be employed to communicate the lesson material to the students.
2. Learning experiences which will permit the students to apply the material presented.
3. The content or subject matter as determined by the lesson objectives.
4. Resources and materials required to present the lesson material.

D. Lesson summary: This section, often called culminating activities, consists of two major components.

1. Summary: The summary components specify the means tying the teaching points together, drawing conclusions, evolving generalizations and emphasizing the major concepts presented.
2. Evaluation: The evaluation component specifies the evaluation techniques which will be employed to determine if the students have reached the lesson objective (learned what they should have learned).

Lesson plans developed for the Comprehensive Vocational Teacher Education Program for the Mississippi ARC Region will contain all of the elements described. Formats for different types of lesson plans (information, manipulative skills, and problem solving) are shown as Samples 3 through 8. Like unit plans, lesson plans will be approved by the Project Director prior to being used. Further, one copy of approved lesson plans, any instructional material

and evaluation instruments will be filed in the program office with the appropriate instructional unit.

SAMPLE #3

INSTRUCTOR'S PLAN

INFORMATIONAL LESSON

Unit _____
Lesson _____

UNIT TITLE:

LESSON SUBJECT:

OBJECTIVE:

TEACHING AIDS:

MATERIALS/EQUIPMENT:

REFERENCES:

I. INTRODUCTION (Preparation of the Learner)

SAMPLE #3

II. LEARNING ACTIVITIES (Presentation of Information)

Instructional Topics Teaching Points	Things For Students To Do Things For Instructor To Do And Say

III. APPLICATION (Drill, illustration, questions, participation in discussion, assignments, investigations, note taking, etc.)

IV. EVALUATION (Verification of students' comprehension of material presented)

V. SUMMARY (Reemphasize the important points. This summary may be given at any place in the lesson the teacher feels will be profitable to the student.)

SAMPLE #4

INSTRUCTOR'S PLAN

INFORMATIONAL LESSON

Unit III
Lesson C

UNIT TITLE:	Preparation and Use of Audiovisual Materials
LESSON SUBJECT:	The Overhead Projector
OBJECTIVES:	Upon completion of this unit, the stuent will be able to: A. Identify the characteristics of an overhead. B. Use an overhead projector effectively.
TEACHING AIDS:	Transparencies III-C-(T1) through III-C-(T8) 35mm Color Slide III-C-(S-1) Instructional Sheet III-C-(I1)
MATERIALS/EQUIPMENT:	Overhead projector Two screens Slide projector Several small three dimensional objects, such as keys, nuts, bolts, or coins A spare overhead projector bulb
REFERENCES:	Kemp, Jerrold E. Planning and Producing Audiovisual Materials. Dale, Edgar. Audiovisual Methods in Teaching. New York: Holt, Rinehart and Wilson, 1969.

I. INTRODUCTION (Preparation of the Learner)

The overhead projector is one of the most common pieces of audiovisual equipment found in the classroom. When used effectively it can be one of a classroom teacher's most effective aids in facilitating learning. The purpose of this lesson is to acquaint students with the characteristics, operations, maintenance and uses of the overhead projector.

SAMPLE #4

II. LEARNING ACTIVITIES (Presentation of Information)

Instructional Topics Teaching Points	Things For Students To Do Things For Instructor To Do And Say
A. Characteristics of overhead projector Transparency III-C-(T1)	1. Teacher shows an overhead projector and points out such features as switch, lens, focusing knobs, height adjustment knob, etc. 2. Projects a transparency (a large slide) on a screen from the front of a lighted room. (Teacher demonstrates) 3. Overhead projectors are easily transported 4. Overhead projectors are relatively inexpensive ($200 to $500) 5. Transparencies are inexpensive and can be made by anyone. Teacher demonstrates following:
B. Operation of overhead projector	
1. Setup	1. Set up projector and screen so that the angle between the lens and the surface of the screen is 90°. 2. Place transparency on projector 3. Turn projector on 4. Focus 5. Turn projector off
2. Operation	1. Place transparency on projector 2. Turn projector off when point has been made
3. Things to remember in operating the projector	1. Avoid keystoning (distortion of the projected image by not having the lens and screen aligned at 90°) (Demonstrate by moving projector up and down or the right or left.) 2. The projected image will depend upon the distance of the projector from the screen. The closer the projector the smaller the image, the farther the projector the larger the image. (Demonstrate)

SAMPLE #4

3. Turn the projector off when it is no longer needed. This not only prolongs the life of the bulb, but eliminates the distraction that a picture on one subject can cause when you are presenting material on another subject.

4. Remember to keep the power cord out of the way to prevent it being tripped over.

C. Maintenance of the overhead projector

1. Routine maintenance is extremely simple:

   a. Keep all lens protected to prevent breakage
   b. Clean all lenses with a soft cloth
   c. Check electrical cords to insure that they are safe

2. Troubleshooting procedures are also very simple. If the projector does not work:

   a. Check the power cord to make sure there is a good connection or that the cord is not defective.
   b. If after cord is checked and projector still does not work, change the blub. (CAUTION: When changing the bulb, make sure the switch is off and gloves or a heavy cloth are used to protect the hand from being burned or cut if the blub should break.)

D. Techniques of using the overhead projector

1. Direct attention to detail on a transparency by using a pointer

   Transparency III-C-(T3)

1. Demonstrate the use of a pointer

2. Use much as you would a blackboard by writing on the transparency with a felt pen or china marker. Transparency III-C-(T4)	1. Demonstrate by writing on transparency
3. Control the rate of presenting information	1. Demonstrate by covering the transparency with paper or cardboard and exposing data when you are ready to discuss each point.
4. Present separate steps of a process or complex idea progressively by superimposing additional transparencies over the base transparency. Transparency III-C-(T5)	1. Demonstrate the use of "flips."
5. Rearrange elements by a diagram by moving overlay sheets. Transparency III-C-(T6)	1. Demonstrate by using an overlay to change a base diagram.
6. Show small three-dimensional objects to show shape or relative size.	1. Demonstrate by placing two or three keys, nuts, etc., on the stage of the projector.
7. Simultaneously project visuals (motion pictures or slides) on another screen to illustrate what is shown by the overhead. Transparency III-C-(T7) 35mm Color Slide III-C-(S1)	1. Demonstrate using a slide projector.
8. Duplicate on paper the material presented as a transparency. Transparency III-C-(T8) Insructional Sheet III-C-(I1)	1. Show transparency 2. Distribute paper copies of the transparency to the class.

9. Simulate motion of parts of a transparency.	1. This requires a special polaroid spinner attachment for the projector. Also, transparencies must be made on a special plastic with a special tape. (NOTE: Demonstration of this may not be possible as spinner attachment is not in common use.)

III. APPLICATION (Drill, illustration, questions, participation in discussion, assignments, investigations, note taking, etc.)

Steps II and III are combined.

During the lecture and demonstrations, students will be encouraged to analyze information presented through questions, answers, and discussion, and will be permitted to examine instructional equipment, instructional sheets and transparencies.

IV. EVALUATION (Verification of students' comprehension of material presented)

Students will be evaluated on the basis of answers to oral questions.

A written objective test covering the material presented will be administered at the end of the next lesson, "Producing Overhead Transparencies."

V. SUMMARY (Reemphasize the important points. This summary may be given at any place in the lesson the teacher feels will be profitable to the student.)

Point 1 - The overhead projector is one of the most common projectors found in the classroom.

Point 2 - The overhead projector is easy to operate and maintain.

Point 3 - It is very versatile and if used effectively can be an invaluable aid in facilitating learning.

SAMPLE #5

INSTRUCTOR'S PLAN

MANIPULATIVE SKILLS

Unit _____
Lesson _____

UNIT TITLE:

LESSON TOPIC:

JOB (or operation):

AIM (or purpose):

TOOLS AND EQUIPMENT:

MATERIALS:

TEACHING AIDS:

REFERENCES:

PREPARATION (of the student)

SAMPLE #5

PRESENTATION (of the skills)

Operations or Steps	Key Points (Things to Do or Say)

APPLICATION (practice by students under close supervision)

TEST (performance of skill to acceptable standards)

SUGGESTED READING FOR STUDENTS

SAMPLE #6

INSTRUCTOR'S PLAN

MANIPULATIVE SKILLS

Unit III
Lesson F

UNIT TITLE:	Preparation and Use of Audiovisual Materials		
LESSON TOPIC:	Use of Motion Picture Projectors		
JOB(or operation):	Splicing Motion Picture Film		
AIM (or purpose):	Students will develop proficiency in splicing motion picture film.		
TOOLS AND EQUIPMENT:	Film splicing unit		
	Clean cotton gloves		
	Scraper or emery board		
MATERIALS:	Pieces of scrap motion picture film		
	Splicing tape		
	Film cement		
TEACHING AIDS:	Transparency	III-F-(T1)	Types of Film Splices
	Instructional Sheet	III-F-(I1)	Mistakes to Avoid in Making Film Splices
REFERENCES:	Kemp, Jerrold E. Planning and Producing Audiovisual Materials. PP. 256-258.		

PREPARATION (of the student)

Occasionally, motion picture film will be broken and must be spliced (repaired) before it can be shown. There are two methods of splicing motion picture film. I will demonstrate both methods and then you will be given the opportunity to practice making film splices.

PRESENTATION (of the skills)

Operations or Steps	Key Points (Things to Do or Say)
A. Tape Splicing (Butt Splice)	
1. Align broken ends of film	1. Align on pins in splicing unit

2. Trim ends	1. Use cutter blade in top of splicing units so that ends are trimmed evenly.
3. Apply splicing tape	1. Place a piece of tape over the pins and the joined ends of film . 2. Pull protective covering from one side of tape. 3. Pull protective covering from other side of tape. 4. Rule tape to insure good adhesion. 5. Turn film over and reset on pins in splicing unit. 6. Repeat steps 1 through 4 above.
4. Inspect finished splice.	1. Splicing tape should be securely adhered to film and perfectly aligned with sprocket holes. 2. Splice should not pull apart when an even pulling pressure is applied both sides of the splice.

B. Cement Splicing (Overlapping Splice)

1. Trim broken ends of film	1. Place one piece of film on sprocket pins at the right side of the splicer, emulsion (dull) side up. 2. Lower cutter bar and trim the film evenly. Then, with film still in place, raise the right side of the splicer up out of the way. 3. Place second piece of film, emulsion side up, in left side of splicer. 4. Lower and secure upper left section to splicer to hold film in place.
2. Scrape emulsion from film	1. Scrape emulsion from edge of film exposed on left side of splicer. Work carefully and remove all emulsion clear down to film base. 2. Wipe deposits (flakes) of emulsion from scraped end of film.

3. Apply cement	1. Apply small amount of cement to the exposed end of the film from which the emulsion has been removed.
4. Clamp ends of film together	1. Quickly lower upper right section of splicer and clamp. 2. Allow to remain clamped for at least [illegible] seconds. 3. Carefully remove film from splicer.
5. Inspect splice	1. Ends of film should be evenly overlapped the width of one frame line. 2. The splice should not come apart when a gentle but firm pulling pressure is applied.

APPLICATION (practice by students under close supervision)

Each student will be given the necessary equipment and materials and be required to make a satisfactory tape splice and a satisfactory cement splice.

TEST (performance of skill to acceptable standards)

The teacher will evaluate each student on the basis of:

A. Performance - Were all steps of the operation followed in the proper sequence?

B. Product - Did the completed splice meet acceptable standards?

SUGGESTED READING FOR STUDENTS

SAMPLE #7

INSTRUCTOR'S PLAN

PROBLEM-SOLVING

Unit _____
Lesson _____

UNIT:

LESSON TOPIC:

OBJECTIVE:

INTRODUCTION: (Identification of the Problem)

METHOD: (Problem-Solving or Managerial)

KEY QUESTIONS TO ASK TO IDENTIFY FACTORS	FACTORS TO BE IDENTIFIED

RESOURCES: (List resources for students to use in locating information to solve the problem.)

SUMMARY: (Draw conclusions to the problem.)

EVALUATION:

SAMPLE #8

INSTRUCTOR'S PLAN

PROBLEM-SOLVING

Unit III
Lesson G

UNIT: Preparation and Use of Audiovisual Materials

LESSON TOPIC: Selecting Appropriate Audiovisual Materials

OBJECTIVE: Students will be able to select audiovisual materials appropriate to the lesson being taught.

INTRODUCTION: (Identification of the Problem)

Many factors must be considered in selecting the audiovisual materials most appropriate for a particular lesson. During this lesson, students will be placed in a hypothetical situation of some vocational teachers having to select appropriate audiovisual material to support a "crash" course designed to teach students, who are functioning below grade level, to use measuring devices.

METHOD: (Problem-Solving or Managerial)

KEY QUESTIONS TO ASK TO IDENTIFY FACTORS	FACTORS TO BE IDENTIFIED
1. What type of learning will take place?	1. Cognitive and psychomotor
2. What is learning level of class?	2. Functioning below grade level
3. What equipment and materials are available?	3. Most common equipment (See III-G-(I1)
4. What is capability to produce audiovisuals?	4. Transparencies, graphics, models, 35mm slides and tape recordings
5. What teaching methods?	5. Lecture demonstration - practical exercise
6. How much time to prepare?	6. One week

RESOURCES: (List resources for students to use in locating information to solve the problem.)

All previous texts and instructional sheets

Instructional Sheet: III-G-(I1)

SUMMARY: (Draw conclusions to the problem.)

Some combination of movie, overhead transparencies, graphics and models would be acceptable solution because the movie film is available and transparencies, graphics, and models could be produced within the time available.

EVALUATION: Students will be evaluated on the appropriateness of their solutions.

SAMPLE

PRACTICAL EXERCISE IN PROBLEM SOLVING

BACKGROUND INFORMATION

I. Two weeks before the beginning of the fall school term at Brightsville Vocational-Technical Center, the center director was advised that more than 50% of all beginning students enrolled in the carpentry, brick-masonry, and plumbing programs were functioning far below grade level in measuring skills. A meeting of the director, the three effected vocational instructors, and the remedial related instructor was held and it was decided that the students who were functioning below grade level in the area of measuring skills would be put through an intensive three day measuring skills course the first week of school. It was also decided that this "crash" course should be designed around audio-visual materials as the traditional textbook/workbook materials would not be appropriate.

II. An inventory of available audiovisual equipment/material identified the following:

1 16mm movie projector
1 16mm movie film: "How to Use Measuring Instruments"
6 overhead projectors
1 opaque projector
2 35mm slide projectors with tape synchronization capability
2 cassette tape recorders
1 filmstrip projector
7 screens
2 large metric conversion charts
1 model of a metric framing square

III. It was also determined that the center had the materials and capability to produce:

A. 35mm color slides (film must be commercially developed - usually 10 days required for delivery)

B. Tape recordings

C. Overhead transparencies

D. Graphics (charts, posters, etc.)

E. Models of wood

F. Reproduction of printed material

IV. A second meeting (a week later) between the three vocational instructors and the remedial related instructors was held and the following course outline was developed.

A. Diagnostic evaluation to determine level of competency

B. Understanding the ruler

C. Graduations of a ruler

1. Inch
2. Foot
3. Yard

D. Measuring

1. Inch measurements
2. Half-inch measurements
3. Fourth-inch measurements
4. Eighth-inch measurements
5. Sixteenth-inch measurements

V. Metric measurements

A. Centimeter

B. Millimeter

PROBLEM REQUIRING SOLUTION

On the basis of the background information, select the most appropriate audiovisual equipment for use: (LIST BELOW)

DEVELOPING AND CODING INSTRUCTIONAL MATERIALS

A well developed and executed inservice lesson plan will generally be supported with supplementary instructional materials. Such instructional materials may be books, pamphlets, brochures, films, filmstrips, slides, tapes, etc., which must be purchased from commercial sources or obtained at no cost from governmental agencies or business and industry. However, in most instances, the instructional materials used with inservice programs conducted by the Comprehensive Vocational Teacher Education Program for the Mississippi ARC Region must be developed by the instructional unit/lesson plan developer. Such instructor-developed materials take several forms, but, generally, they will fall into one of the following categories.

A. Teaching Aid - an auxiliary instructional device, such as a summary sheet, drawing diagram, chart or model used by the teacher to facilitate learning.

B. Instructional sheets - written teaching aids which contain organized material for the use of individual students. Job sheets, information sheets, and assignment sheets fall into this category.

C. Evaluation Instruments - written or performance tests which are used to evaluate the knowledge, aptitude, or skill of the student. Such instruments may be designed for either pretesting or post-testing.

D. Transparencies - are large slides containing written or graphic material which is projected by an overhead projector onto a screen. (In most instances the developer will produce a paper master from which the transparency can be produced.)

Instructional materials may be arranged within a course, unit or lesson in many ways. Also, there are many ways of coding, or cross

referencing instructional materials. However, for the purpose of standardization within the Comprehensive Vocational Teacher Education Program for the Mississippi ARC Region, materials will be arranged at the end of the lesson plan in the order in which they are used in the presentation. Instructional units, lesson plans, and instructional materials will be coded in the upper right hand corner of the first page as follows:

A. Units of instruction are designated by Roman Numerals and capital letters (IA, IB, IIA, IIB, etc.). (Unit designations will be assigned by the ARC Project Associate Director.)

B. Lesson plans are designated by capital letters (A, B, C, etc.).

C. Teaching aids are designated by (A) and an arabic numeral and coded to the lesson with which it will be used.

   Example: The first teaching aid for the second lesson in unit IIIA would be coded IIIA-B-(A1).

D. Instructional sheets are designated by (I) and an arabic numeral and coded to the lesson with which it will be used.

   Example: The second instructional sheet for the first lesson in unit IIA would be IIA-A-(I2).

E. Transparencies are designated by (T) and an arabic numeral and coded to the lesson with which it will be used.

   Example: The third transparency to the second lesson of unit IIIA would be coded IIIA-B-(T3).

F. Evaluation instruments are designated by an E and coded to the lesson with which it will be used:

Example: A pretest to be given in the third lesson of unit IA would be IA-C-(E1) while a post-test for the same lesson would be IA-C-(E2).

EVALUATING INSERVICE TRAINING

Evaluating is a vital element of an inservice training program in that it:

A. Reveals the extent to which program participants benefited from the training.

B. Reveals whether or not overall program objectives were met.

C. Provides a basis for awarding credits toward teacher certification/recertification.

D. Helps to identify future training needs.

All inservice training conducted by the Comprehensive Vocational Teacher Education Program for the Mississippi ARC Region will be evaluated as follows:

A. Student Achievement: Individual program participants will be evaluated by the instructor to determine how well lesson objectives (student behavioral objectives) were met. Any appropriate evaluation method or instrument may be employed. Records of student evaluations should be filed with appropriate inservice training reports. Some suggested methods are:

1. Standard tests
2. Teacher prepared tests
3. Oral examination
4. Performance tests
5. Product tests
6. Progress charts
7. Student follow-up

B. Unit or Lesson Presentation: Individual instructors will administer an Inservice Training Critique instrument (sample 9) to all program participants. Completed critique sheets will be turned in to the ARC Project Office.

C. Program effectiveness: Evaluation of overall program effectiveness will be the responsibility of Training Coordinator and the Associate Project Director. A variety of methods and instruments may be employed. Some suggested methods are:

1. Student critique of training (see sample 9)
2. Post training survey/observation of students
3. Feedback from teachers, directors, steering committee, teacher educators and state staff.
4. Examination of inservice training records and reports.

INSERVICE TRAINING CRITIQUE **SAMPLE** #9

LESSON TITLE: _____

INSTRUCTOR: _____

PLACE: _____ DATE: _____

INSTRUCTIONS: Please respond by circling the number which represents your true feelings toward each item.

INSTRUCTOR EVALUATION:

1. Did the instructor have sufficient knowledge of the subject to teach it?

   Did not 1 2 3 4 5 Did

2. Was the instructor's preparation to teach the class adequate?

   Was not 1 2 3 4 5 Was

3. Did the instructor present material in an interesting way?

   Very dull 1 2 3 4 5 Interesting

4. Did the instructor use enough examples or illustrations to clarify the material presented?

   Did not 1 2 3 4 5 Did

5. Did the instructor use instructional aids/materials effectively?

   Ineffective 1 2 3 4 5 Effective

6. Did you feel free to ask questions in class?

   Not free 1 2 3 4 5 Free

7. Was the instructor responsive to feedback from the class?

   Not responsive 1 2 3 4 5 Responsive

GENERAL PROGRAM EVALUATION:

8. In terms of your personal and professional needs as a vocational teacher, how relevant was this course to you?

   Highly irrelevant 1 2 3 4 5 Highly relevant

9. As a result of this training do you believe you will make any changes in the way you teach?

   Will not change 1 2 3 4 5 Will change

10. How did this training rate in comparison to other inservice training you have had?

    One of the worst 1 2 3 4 5 One of the best

11. Would you recommend this training to others?

    Would not 1 2 3 4 5 Would

12. Comments or suggestions for improvement (optional).

_____

_____

_____

_____

_____

_____

_____

INSERVICE TRAINING RECORDS AND REPORTS

As a minimum the following records and reports will be maintained on all inservice training conducted by the Comprehensive Vocational Teacher Education Program for the Mississippi ARC Region.

A. Inservice Training Report. (See Sample 10.) An Inservice Training Report will be prepared by the instructor for each in-service training session. Reports will be submitted to the Associate Project Director as soon as practical after the training has been completed.

B. Class Rosters. Class rosters (Sample 11) will be compiled for each inservice training session conducted. A copy of the class roster will be attached to each Inservice Training Report submitted.

C. Individual Training Record. An individual record will be maintained in the Project Central Office for each individual participating in an inservice training program. Appropriate data contained in Inservice Training Reports and class rosters will be entered in individual training records.

SAMPLE #10

INSERVICE TRAINING REPORT

UNIT TITLE: _____

LESSON TITLE: _____

INSTRUCTOR: _____

PLACE TAUGHT: _____ DATE TAUGHT: _____

LENGTH OF SESSION: _____ CLASS ENROLLMENT: _____

Evaluation of student achievement: (How well were lesson objectives met?)

Adequacy of equipment and facilities:

Adequacy of instructional materials:

Problems encountered:

Recommendations for improvement:

SAMPLE #11

CLASS ROSTER

UNIT TITLE: _____

LESSON TITLE: _____

DATE: _____ TIME: _____

INSTRUCTOR: _____

NAME	VOCATIONAL CENTER